Kandalf
THE SUPER TOWER

User's Manual

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Chapter1   Product Introduction

1.1 Specification

Model	Kandalf --- VA9000SWA
Case Type	Super Tower
Side Panel	**Transparent side panel**
Net Weight	**10.1 Kg**
Dimension	530 x 220 x 595 mm **(H*W*D)**
Cooling System	●Front (intake) : 120 x 120 x25 mm, 1300rpm, 17dBA ●Rear (Exhaust) : 120 x 120 x25 mm blue LED fan, 1300rpm,17dBA & 90 x 90 x 25mm,1800rpm,19dBA ●Top (Exhaust) : 90 x 90 x 25mm, 1800rpm, 19dBA
Drive Bays -Front Accessible -Internal	11 Up to 10 x 5.25" , 2 x 3.5" 6 x 3.5"
Material	Chassis**: 1.0 mm Aluminum** Front bezel **: Aluminum**
color	Silver
Expansion Slots	7
Motherboards	Micro ATX, ATX, Extend ATX, BTX
BTX upgraded kits (option : A9358)	SRM / Rear plate

Model	Kandalf --- VA9000BWS
Case Type	Super Tower
Side Panel	**Transparent side panel**
Net Weight	**18.1Kg**
Dimension	530 x 220 x 595 mm **(H*W*D)**
Cooling System	●Front (intake) : 120 x 120 x25 mm, 1300rpm, 17dBA ●Rear (Exhaust) : 120 x 120 x25 mm blue LED fan, 1300rpm,17dBA & 90 x 90 x 25mm,1800rpm,19dBA ●Top (Exhaust) : 90 x 90 x 25mm, 1800rpm, 19dBA
Drive Bays -Front Accessible -Internal	11 Up to 10 x 5.25" , 2 x 3.5" 6 x 3.5"
Material	Chassis**: 1.0 mm SECC** Front bezel **: Aluminum**
color	Black
Expansion Slots	7
Motherboards	Micro ATX, ATX, Extend ATX, BTX
BTX upgraded kits (option : A9358)	SRM / Rear plate

Chapter2 Case Mechanical Operation

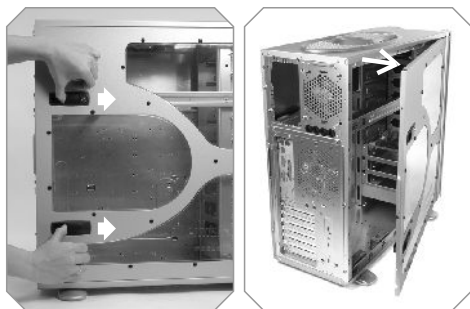## 2.1 How to open the side panel

To find out the side panel key from the back side of the case then open it as the picture.
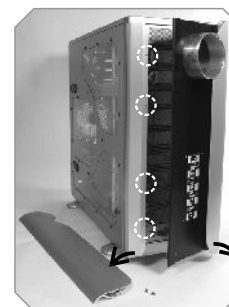
1

Make sure the side panel lock is opened.

2

Push the button then swing out the side panel.

3

2.2 How to Remove front bezel

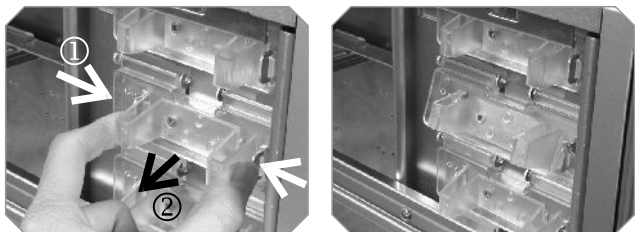Remove 4 screws on both side panel

Remove front bezel

Place decorated screws as shown in picture

2.3 Installing 5.25" Device

Squeeze and pull out-ward the tool-free clip

1

Remove the drive bay cover from the selected position,
then insert the device into the 5.25" drive bay

2

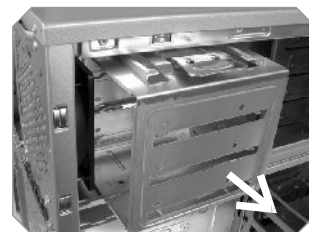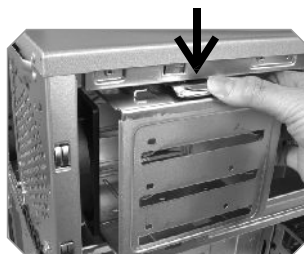

Squeeze and push in-ward the
tool-free clip.

3

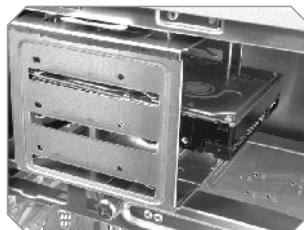Finish installation

4

2.4 Installing 3.5" HDD

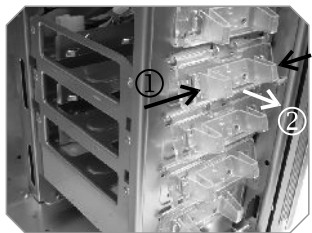Unscrew the thumb screw
for removable HDD cage

Push down and hold the metal tab,
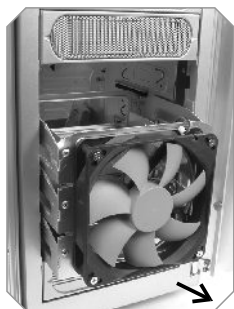then pull the HDD cage out-ward
to remove from chassis.

Secure HDD with Screws

2.5 Removable 12cm Fan cage with 3HDD

Squeeze and pull out-ward the tool-free clip

Note: Remove 12 cm fan cage is secured with 3 tool-free clips. Be sure to free all 3 tool-free clips

After loosen tool-free clip, remove 3 drive bay covers located in front of the 12 cm fan cage. Then slide the fan cage out-ward to remove.

Remove another 3 drive bay covers at desired location for 12 cm fan cage. Squeeze and pull out-ward the tool-free clip at desired location
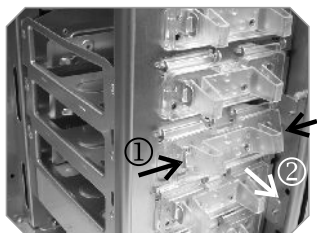
Insert the 12 cm fan cage into the desired location by sliding the cage in-ward from the front of chassis.

Squeeze and push in-ward the tool free clip to secure the 12 cm fan cage.

Replace back the 3 drive bay covers previously removed

2.6 Installing 3.5" HDD (For 12cm Fan Cage)

Squeeze and pull out-ward
the tool-free clip at desired
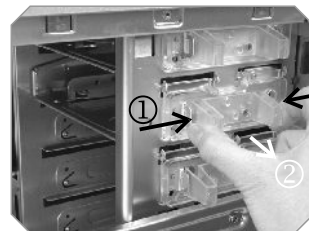slot.

Insert HDD by sliding HDD
into the 12 cm fan cage.

Secure HDD by tightening
screw to HDD

Squeeze and push in-ward
the tool free clip to secure
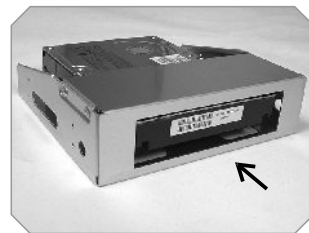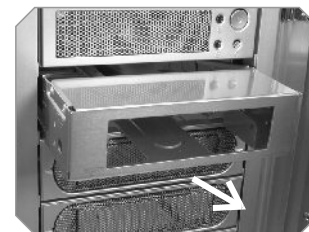the HDD in the 12 cm fan cage.

2.7 5.25" to 3.5" Drive Tray Device Installation.

Squeeze and pull out-ward the tool-free clip securing the drive tray

Remove drive bay cover in front of the drive tray. Then slide out
the device tray.

Insert HDD drive into device tray. Secure HDD with screw from the
side of device tray labeled HDD.

Insert back the device tray and replace back the
drive bay cover.

Squeeze and push in-ward the tool free clip to secure the device tray.

### Installing Floppy Disk Drive to Device tray

Remove device tray and insert floppy disk drive into device tray. Secure FDD with screw from the side of device tray labeled FDD.
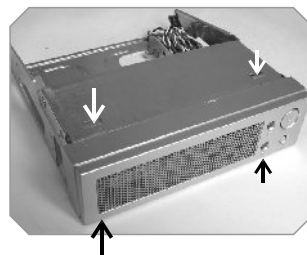

Insert back device tray. Remove mesh on drive bay cover. Then replace back drive bay cover. Squeeze and push in-ward the tool free clip to secure the device tray
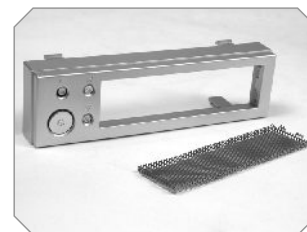
2.8 Installing 3.5" Device to Drive Tray With Power Button
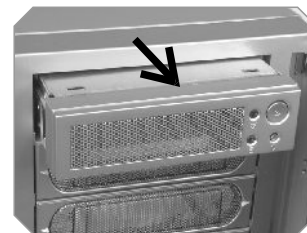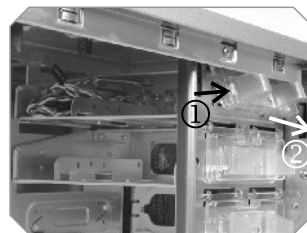
Squeeze and pull out-ward the tool-free clip securing the drive tray with power button. Remove and slide drive bay out-ward to remove.
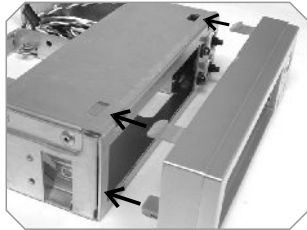

Squeeze both top and bottom portion of drive tray cover picture to the left to remove cover.
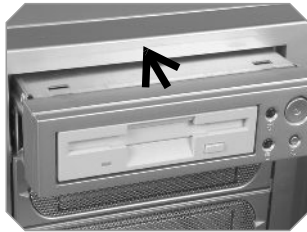

Remove mesh from cover

Place cover back to drive tray to its original position. Insert 3.25" device and secure device with screw.

Insert back the device tray pictured above. Squeeze and push in-ward the tool free clip to secure the device tray
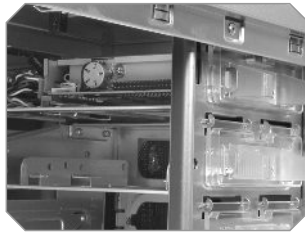
Drive tray with Power Button can be placed at any drive bay desired.

2.9　Installing Power Supply

Install power supply unit as shown in pictures

Locate the hook of PSU supporter on the hole which is circled in photo above
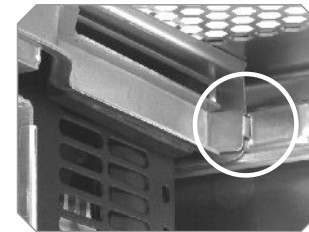
Swing the supporter to its proper position as shown in photo above

Secure the supporter with screw
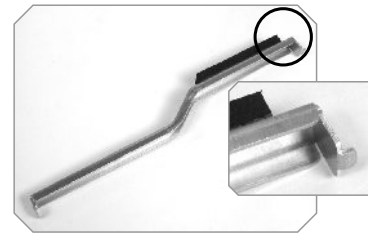
2.10 Installing the fan on top of the case
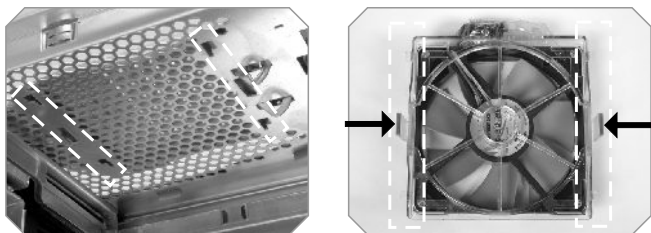
Press-in 2 clips on the side of fan
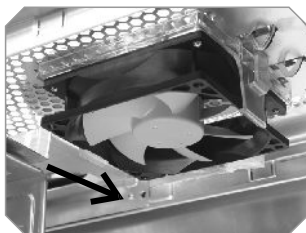
Align all clips with mounting holes,
then push-in the fan against case body
to secure it.

2.11 How to remove the fan & fan holder

12 cm rear fan
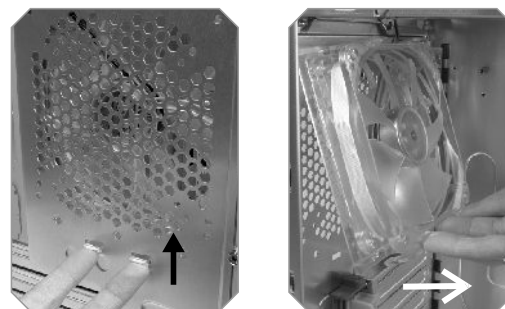
Push fan clip upward to loose fan,
then remove fan holder from inside

9 cm rear fan
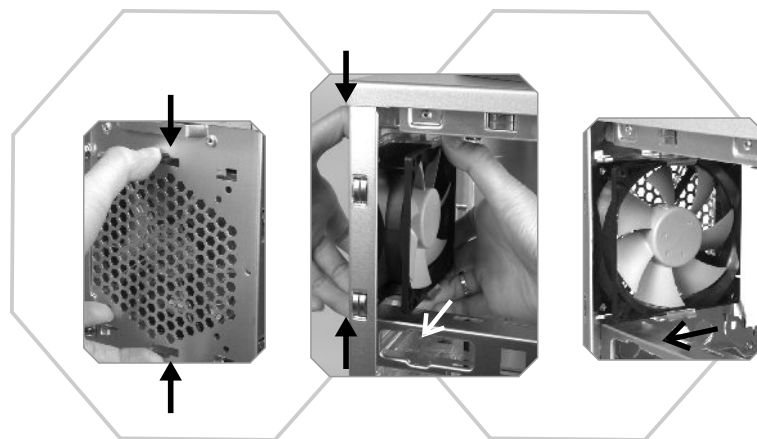
To remove fan & fan holder by press-in clips then pull
both from inside. Please see above picture

2.12 Air Cooling System

-90 x 90 x 25mm, 1800rpm, 19dBA
-Rear HDD cooling
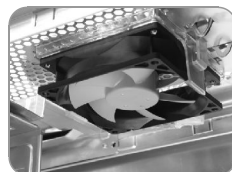
-Top (Exhaust):
90 x 90 x 25mm,
1800rpm, 19dBA
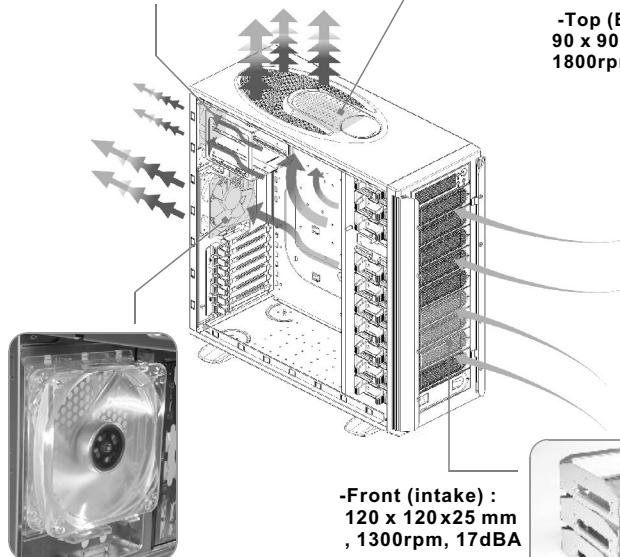
-Rear (Exhaust):
120 x 120 x 25 mm blue LED fan,
1300rpm, 17dBA

-Front (intake):
120 x 120 x 25 mm
, 1300rpm, 17dBA

4-pin connector:
connect to PSU

3-pin signal connector:
connect to M/B

2.13 BTX Upgraded Kits
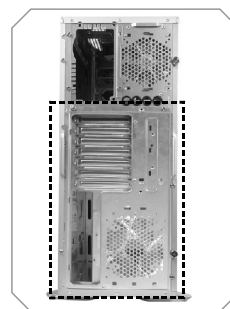
BTX rear plate

BTX SRM
(Supported Retention Module)

BTX upgraded kit box

2.14 PCI slot tool-free function operation

Open the plastic clip then take off the PCI bracket as follow.
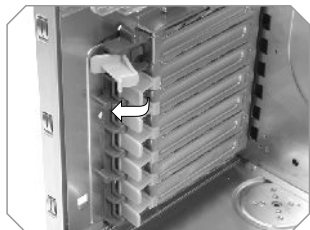
Chapter3 Motherboard & Leads Installation

3.1 Motherboard Installation

Each motherboard has different standoff layout. It is highly suggested that you refer to your motherboard's manual when installing motherboard into the case. The cases are applicable with Extend-ATX 、Standard ATX, Micro ATX motherboards. Your motherboard may require a special I/O Panel, which should be included with your motherboard.

Placement Direction:
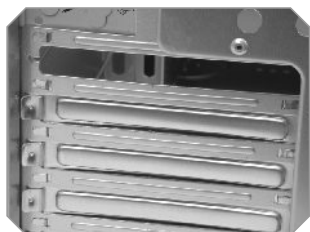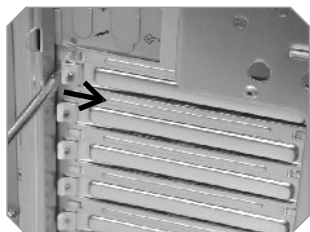When installing the motherboard, make sure you follow the direction provided by your motherboard manufacturer. On most standard motherboards, the edge with external ports goes to the rear part of the chassis. It is highly recommended that you install CPU, heat sink and modular components before fixing the motherboard inside the chassis.

This side towards the rear of the chassis
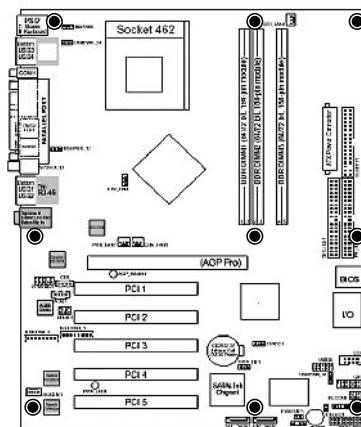
◉ = the locations of the screw holes. Note these locations and place included standoffs on the chassis first.

Above illustration is a sample of what the motherboard's layout. For more detail screw hole placement, please refer to your motherboard manual.

3.2 Case LED connections

On the front of the case, you can find some LEDs and switch leads (POWER SW*1, POWER LED*1, H.D.D. LED*1, RESET SW*1, SPEAKER*1).

Please consult user manual of your motherboard manufacturer, then connect these leads to the panel header on the motherboard. These leads are usually labeled; if not, please trace them back to the case front to find out their source.

- **POWER LED** connects to your M/B at the PLED.
- **POWER SW** connects to the PWR connector on the motherboard.
- **H.D.D LED** connects to the 2-pin labeled HDD LED connector.
- **RESET SW** connects to the RSW connector on the motherboard.
- **SPEAKER** connector: find out the 4-pin labeled SPEAKER on the M/B then connect it.

In order to light on front blue LED, please find out the connector as shown in above photo, then connect to PSU.

3.3 USB2.0 & IEEE1394 Firewire connection

USB connection

Please consult your motherboard manual to find out the section of "*USB connection*".

USB2.0 connection			
M/B layout (Ex: ASUS)	Case layout		
1	USB+5V	VCC 1	Red	
2	LDM1	DATA-1	White	
3	LDP1	DATA+1	Green	USB 1
4	GND	GND 1	Black	
5	NC	SHIELD 1	Black	
6	USB+5V	VCC 2	Red	
7	LDM2	DATA-2	White	
8	LDP2	DATA+2	Green	USB 2
9	GND	GND 2	Black	
10	--	SHIELD 2	Black	
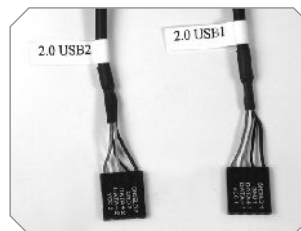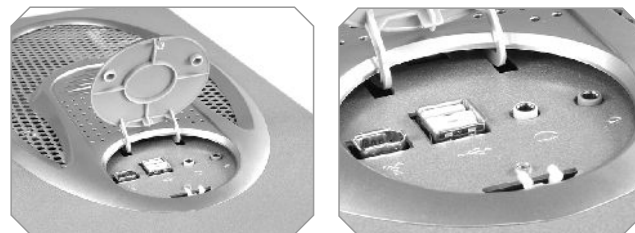
IEEE1394 Firewire connection

Please consult your motherboard manual to find
out the section of *"IEEE1394 Firewire connection"*.

| 1394 Firewire connection			
M/B layout (Ex: ASUS)		Case layout	
1	+12V	VP	White
2	Ground	VG	Black
3	TPB-	TPB- or TPB*	Red
4	TPB+	TPB+ or TPB	Green
5	TPA-	TPA- or TPA*	Orange
6	TPA+	TPA+ or TPA	Blue
7	Ground	Ground	Black
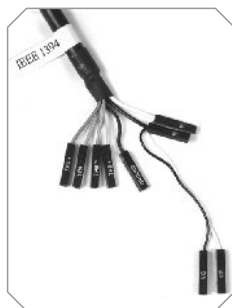
3.4 Ear & MIC connections

Please consult your motherboard manual to find out
the section of "front panel audio connector".

Ear & Mic connection			
M/B layout (Ex: ASUS)		Case layout	
1	LINE_OUT R	EAR R	Red
2	LINE_IN R	Return R	White
3	LINE_OUT L	EAR L	Green
4	LINE_IN L	Return L	Yellow
5	MIC	MIC IN	Red
6	MIC PWR	MIC VCC or MICBIAS	White
7	Ground	Ground	Black
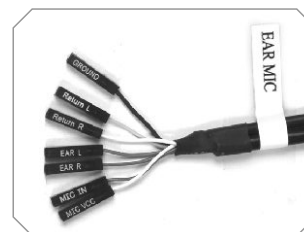
3.5 Case open alarm function (Intrusion switch)

1 To find out the cable with 2pin connector (Micro SW) from the rear of inside the chassis.

2 To find out the position of Chassis Alarm on your motherboard. (please consult your motherboard manual)

White Wire

Black Wire
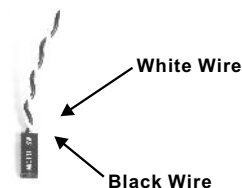
Chapter4 Other

4.1 Silent Purepower™ power supply (optional)

The Thermaltake Silent™ Purepower specification meets Intel Pentium 4 and AMD K7; it offers plenty of functions, which mainly include:

1.*Automatic Fan Speed Control:* The Silent Purepower™ power supply can detect the inside heat and automatically adjust the fan speed to provide adequate airflow.

2.*Ultra Silent:* Ball bearing fans with high reliability and super low acoustic noise under all load condition.

The functions can assure the Silent Purepower™ meet the balance in noise control and heat exhausted. The Silent Purepower™ provides complete protection function as follow:

1. Over thermal protection at 100 °C-105 °C
2. Short circuit protection on all output.
3. Over voltage protection / Under voltage protection.
4. Over current protection.

Besides, Thermaltake enables the quality assurance of the Silent Purepower™: 100% Hi-POT and ATE Function Test, 100% Burn-In and AC Input cycled on/off under high temperature condition. Furthermore, it has been approved by ***UL, CSA, TUV, VDE, NODIC, CB, FCC, CE, CNS.***

There are three main products of Thermaltake PSU, it is divided into standard, VR and specialty power supply unit. Please refer to http://www.thermaltake.com/purepower/main.htm

Important Notice -

Contents below are additional information for proper motherboard installation for Thermaltake Armor (page 18) / Kandalf (page 20) Full Tower Chassis.
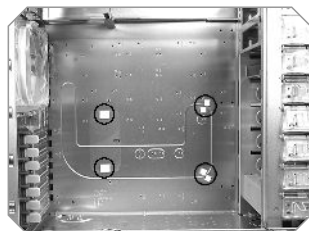

Inside the accessory box, please locate the Mylars
(clear plastic films).

*Note: Due to the unique design of the Armor / Kandalf Chassis, these Mylar tapes are included to prevent ATX motherboards from contacting the chassis.
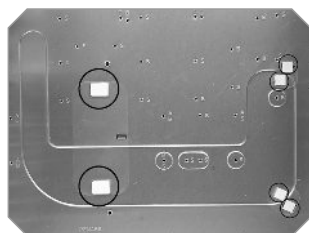
Remove the adhesive backing and place the Mylars over each locations as shown.

Completed. Please note the Mylar tapes included are transparent. The image here is for reference only.

*Note: When assembling BTX motherboards into the Armor / Kandalf chassis, these Mylar tapes are not necessary.